

Remarks

In response to the Office Action mailed October 18, 2007, and in view of the Advisory Action mailed on January 9, 2008, and the Notice of Panel Decision from Pre-Appeal Brief Review mailed March 7, 2008, Applicants request reconsideration of this application in view of the amendments above and the following remarks.

Claims 1-4 and 6-9 stand rejected, and claim 5 was objected to for its dependence on a rejected base claim. Claim 7 is cancelled and claims 1 and 8 are amended. Claims 10-30 were previously withdrawn and claims 24-30 are now presented again because, due to an oversight, they were never examined nor restricted and were only withdrawn by Applicant to put the case in condition for appeal. Claim 31 was added after the Final Office Action of October 18, 2007, and was not addressed in the advisory action. New claims 32-38 are added as part of the current response.

I. Examiner Interview

Prior to the filing of the Pre-Appeal Brief Conference Request, Applicant's representative Nathan T. Lewis and Mr. Dan Graves, an employee of the owner of the application, Bridgestone Corporation, conducted a telephone interview with the Examiner. On the phone, the Examiner graciously listened to Applicant's arguments which, for the most part, had also been made in the previous written responses including a declaration by Mr. Graves. At the conclusion of the call the Examiner indicated that the final rejection was incorrect to equate the 1,2 microstructure control agents of Krom with functional groups on the nanoparticle; specifically, the Examiner admitted that we were now past this issue. During the call, the Examiner also presented an

argument that the claims were anticipated by Krom because a polymer being linked to a nanoparticle could be considered a functional group. At this point, since Applicant's arguments were persuasive to remove the rejection at issue, prosecution should have been reopened with a new office action that formally made the new grounds for rejection and that would give Applicants a fair opportunity to respond to this new basis. Nevertheless, prosecution was not reopened even after the Pre-Appeal Brief Conference Panel Review.

II. Rejections over the Prior Art

Applicants continue to strenuously disagree with the maintenance of the rejections in the Final Office Action; however, in order to expedite prosecution, the claims have been amended.

A. Claims 1-6, 8-9, and 24-30

Claim 1 now requires that the "functional group is selected from the group consisting of maleic anhydride, amine, azo, carboxylic acid, epoxide, amino, and mixtures thereof." As has been fully discussed in the prior record of this case, the 1,2 microstructure control agents do not create a functional group on the outer layer of the formed nanoparticle. Instead, they merely affect the formation of the double-bond on the polymer strings of the nanoparticle. They are not present on the formed nanoparticle outer layer. Furthermore, the listed functional groups are not polymers and are not disclosed, taught, or suggested by Krom's disclosure of dispersing nanoparticles in a polymer matrix. It is also noted that the majority of the various limitations of the dependent claims were not even addressed in the prior office actions, and thus a *prima facie* case of unpatentability has not been made against these claims. Accordingly, independent claim 1 and its dependent claims 2-6, 8-9 and 24-30 are believed to be patentable over the cited reference.

B. Claim 31

Claim 31 is original claim 5 (which was indicated to be allowable) rewritten in independent form. It is believed that this claim is patentable based on the Examiner's indication in the Final Office Action.

C. Claims 32-34

New claims 32-33 require that the nanoparticle be complexed with a metal. This limitation is not disclosed, taught, or suggested in the cited reference. Claim 34 recites a narrower group of functional groups that are also not disclosed, taught, or suggested in the cited reference.

D. Claims 35-38

New independent claim 35 requires that the nanoparticle include a functional group that is polar. The microstructure control agents in Krom are not polar functional groups on the nanoparticle as discussed previously, and the polymeric matrices disclosed in Krom are also not polar functional groups. Therefore, claim 35 and its dependent claims are believed to be patentable over the cited prior art. Furthermore, dependent claims 35-37 include additional distinguishing features from the prior art.

III. Conclusion

For the foregoing reasons, Applicants believe that the application is in condition for allowance. The Examiner is invited to call the undersigned attorney if this response does not put the case in condition for allowance and it might be helpful in expediting prosecution of this case.

Respectfully submitted,

JONES DAY

A handwritten signature in black ink, appearing to read 'Nathan T. Lewis', written over a horizontal line.

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